



To: Dave Risvold, Pierce County Shoreline Planning Supervisor
cc: Thom Fischer, Electron Hydro
Corey Kleppe, Electron Hydro

From: Chris Cziesla, Confluence Environmental Company

A handwritten signature in blue ink that reads "Chris Cziesla".

Date: September 17, 2020

Re: Review and Confirmation of Electron Hydro River Clean Up Report

Enclosures: Attachment 1—Photographs.

Confluence Environmental Company (Confluence) was requested to serve as a third-party to monitor actions taken by Electron Hydro related to the modification of the Intake Structure being undertaken at the Electron Dam and to verify the recovery of material (i.e., Astro-Turf, HDPE Sheeting and crumb-rubber matting) used to line the bypass channel during construction, which was lost due to high flows in the Puyallup River in early August.

Confluence has participated in numerous phone calls and visited the site on four occasions:

- August 31, 2020 – Chris Cziesla participated in meetings and a site tour with Electron Hydro staff to get up to speed on the project, what's been done, what remains to be completed and ongoing efforts to recover material used to line the bypass channel, which were lost during high-flows.
- September 4, 2020 – Chris Cziesla, Irene Sato, and Chris Soncarty participated in meetings and a site tour with Electron Hydro Staff to learn more about the project and ongoing efforts to recover material from the river.
- September 11, 2020 – Chris Soncarty, Jeff Huber and Al Schumacher visited the site to inspect material recovered from the Puyallup River and being stored on-site, to understand the extent of recovered material that was disposed of at a Pierce County landfill, and to inspect material recovered from the Puyallup River on Friday, September 11, 2020.
- September 16, 2020 – Chris Cziesla visited the site to confirm the total amount of material Electron Hydro Staff were able to recover from the Puyallup River. A visual inspection of recovered material was performed and a reconnaissance visit to the upper 0.5 miles of the River was conducted to ascertain presence/absence of debris.

This memorandum summarizes the information that Confluence (Chris Soncarty and Chris Cziesla) and Encore Environmental (Jeff Huber and Al Schumacher) were able to confirm related to the recovery of lost material from the Puyallup River and the quantity of material that had been recovered as of September 11, 2020 and again on September 16, 2020. The photographs included in this memo were taken by Confluence and Encore personnel. The following information was reviewed by Confluence and Encore:

- Electron crews have been collecting debris from various locations downstream of the diversion dam. The Crews have inspected areas downstream of where the Puyallup Tribe had flown an aerial drone and recovered material from accessible areas.
- Electron crews accessed debris locations identified in the drone survey and removed all materials that they were safely able to access. A table in Electron's report describes these locations and actions taken at each location.
- Electron indicated that there were some areas that were too dangerous to access (i.e., steep canyon areas with high gradient stream reaches and high-water levels) where it appears a limited amount of material has deposited. Electron Crews have not been able to access these areas and recover material.
- Electron initially disposed of a portion (i.e., material collected during the first days after release) of recovered material at a landfill. Electron provided estimates of the quantity/volume of material that was disposed of (i.e., ½ to 2 cubic yards) during the site visit and has included the receipts for disposal in their memo. Electron did indicate that the weight presented on the receipt (i.e., 9,620 lbs) is not reflective of the extent of material they recovered from the river and disposed of because the dumpster had other waste in it. Electron has been collecting and storing all the material subsequently recovered from the Puyallup River.
- Electron did attempt to recover crumb-rubber from the river with a hand-held battery-powered vacuum. They recovered and were storing an estimated 5-7 cups of crumb-rubber material (see photo 2 of trash-can – material is in the bottom) on September 11, 2020.
- The amount of material Electron recovered on September 11, 2020 filled 2 full-size Ford pick-up beds (see photos 3 and 4 of truck beds).
- Electron has been collecting and storing recovered material in a Conex box at the main office. On September 11, 2020, there were four super-sacks of recovered material in the Conex box (varying levels of fullness, see photo 1). By September 16, 2020, there were

approximately 6 super sacks of various fullness and 10-15 smaller sized sacks along with a large pile material not in sacks primarily composed of turf and HDPE liner (See photos 5 and 6).

- On Wednesday September 16, 2020, Chris Cziesla visited the site to confirm additional information about ongoing debris removal from the River. A visual inspection of the upper 0.5-miles of the River (i.e., from the diversion structure 0.5-miles downstream) was conducted (See photos 7 – 11) .
- The visual inspection did not identify additional HDPE liner or turf materials visible along this portion of the River. The flow in the River was fairly low (~406 cfs USGS Near Electron) facilitating visual inspection. However, background river turbidity was high and therefore any fully submerged areas were not visible.
- Two other pieces of debris, not associated with the Electron Hydro Project, were observed in this section of river. One item was a substantial length (15 feet+) of aged communication cable and an aged wood and steel pipe item of unknown origin (potentially part of washed away gauge or bridge from upstream).

It is our understanding that debris removal efforts will be continuing, and any new material discovered will be removed from the River and stored onsite for verification.